

ABSTRACT

5 Process and apparatus for the preparation of synthesis gas by catalytic steam and/or CO₂ reforming of a hydrocarbon feedstock comprising the following steps:

10 (a) heating the reaction mixture of hydrocarbon and steam and/or CO₂ in a heated steam reforming unit integrated with the flue gas containing waste heat section from the fired tubular reformer in which reforming of the reaction mixture takes place by contact with a solid reforming catalyst

15 (b) feeding the partially steam reformed mixture to the fired tubular reformer and further reforming the mixture to the desired composition and temperature, wherein the heated steam reforming unit comprises a piping system containing reaction sections with solid reforming catalyst comprising catalyst pellets and/or catalysed structured elements, the piping system being part of the process gas piping system integrated with the flue gas-containing waste heat section.

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